

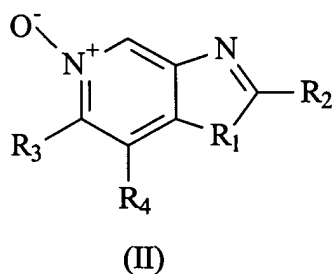
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-23 (canceled)

24 (original) A compound of the formula II:



wherein

R₁ is selected from the group consisting of oxygen, sulfur and selenium;

R₂ is selected from the group consisting of

- hydrogen;
- alkyl;
- alkyl-OH;
- haloalkyl;
- alkenyl;
- alkyl-X-alkyl;
- alkyl-X-alkenyl;
- alkenyl-X-alkyl;
- alkenyl-X-alkenyl;
- alkyl-N(R₅)₂;
- alkyl-N₃;
- alkyl-O-C(O)-N(R₅)₂;
- heterocyclyl;
- alkyl-X-heterocyclyl;

-alkenyl-X-heterocyclyl;
-aryl;
-alkyl-X-aryl;
-alkenyl-X-aryl;
-heteroaryl;
-alkyl-X-heteroaryl;
-alkenyl-X-heteroaryl;
-SO₂CH₃; and
-CH₂-O-C(O)-CH₃;

R₃ and **R₄** are each independently:

-hydrogen;
-X-alkyl;
-halo;
-haloalkyl;
-N(R₅)₂;

or when taken together, **R₃** and **R₄** form a fused aromatic, heteroaromatic, cycloalkyl or heterocyclic ring;

X is selected from the group consisting of -O-, -S-, -NR₅-, -C(O)-, -C(O)O-, and a bond; and

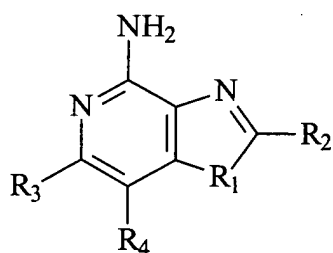
each **R₅** is independently H or C₁₋₈alkyl.

25 (original) A compound selected from the group consisting of:

2-methylthiazolo[4,5-*c*]quinoline-5N-oxide;
2-ethylthiazolo[4,5-*c*]quinoline-5N-oxide;
2-propylthiazolo[4,5-*c*]quinoline-5N-oxide;
2-pentylthiazolo[4,5-*c*]quinoline-5N-oxide;
2-butylthiazolo[4,5-*c*]quinoline-5N-oxide;
2-(1-methylethyl)thiazolo[4,5-*c*]quinoline-5N-oxide;
2-(2-phenyl-1-ethenyl)thiazolo[4,5-*c*]quinoline-5N-oxide;
2-phenylethylthiazolo[4,5-*c*]quinoline-5N-oxide;

2-methyl-1-thiazolo[4,5-*c*]quinolin-2-yl-2-propanol-5N-oxide;
2-(ethoxymethyl)thiazolo[4,5-*c*]quinoline-5N-oxide;
2-(methoxymethyl)thiazolo[4,5-*c*]quinoline-5N-oxide;
2-(2-methylpropyl)thiazolo[4,5-*c*]quinoline-5N-oxide;
2-benzylthiazolo[4,5-*c*]quinoline-5N-oxide;
8-methyl-2-propylthiazolo[4,5-*c*]quinoline-5N-oxide; and
2-butyloxazolo[4,5-*c*]quinoline-5N-oxide.

26 (new) A method of inducing cytokine biosynthesis in a mammal comprising administering a composition comprising a therapeutically effective amount of a compound of the formula I:



(I)

wherein:

R₁ is selected from the group consisting of oxygen, sulfur and selenium;

R₂ is selected from the group consisting of

- hydrogen;
- alkyl;
- alkyl-OH;
- haloalkyl;
- alkenyl;
- alkyl-X-alkyl;
- alkyl-X-alkenyl;
- alkenyl-X-alkyl;
- alkenyl-X-alkenyl;

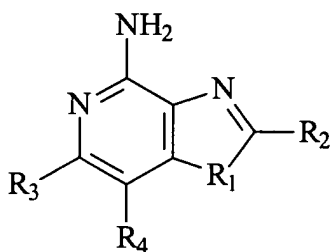
-alkyl-N(R₅)₂;
 -alkyl-N₃;
 -alkyl-O-C(O)-N(R₅)₂;
 -aryl;
 -alkyl-X-aryl; and
 -alkenyl-X-aryl;

R₃ and **R**₄ are taken together to form a fused heteroaromatic or heterocyclic ring;

X is selected from the group consisting of -O-, -S-, -NR₅-, -C(O)-, -C(O)O-, -OC(O)-, and a bond; and

each **R**₅ is independently H or C₁₋₈alkyl; or
 a pharmaceutically acceptable salt thereof, with a pharmaceutically acceptable carrier, to the mammal.

- 27 (new) The method of claim 26 wherein the cytokine comprises IFN- α .
- 28 (new) The method of claim 26 wherein the cytokine comprises TNF- α .
- 29 (new) The method of claim 26 wherein the composition is administered topically.
- 30 (new) The method of claim 26 wherein **R**₁ is sulfur.
- 31 (new) A method of treating a viral disease in a mammal comprising administering a composition comprising a therapeutically effective amount of a compound of the formula I:



(I)

wherein:

R₁ is selected from the group consisting of oxygen, sulfur and selenium;

R₂ is selected from the group consisting of

- hydrogen;
- alkyl;
- alkyl-OH;
- haloalkyl;
- alkenyl;
- alkyl-X-alkyl;
- alkyl-X-alkenyl;
- alkenyl-X-alkyl;
- alkenyl-X-alkenyl;
- alkyl-N(R₅)₂;
- alkyl-N₃;
- alkyl-O-C(O)-N(R₅)₂;
- aryl;
- alkyl-X-aryl; and
- alkenyl-X-aryl;

R₃ and **R₄** are taken together to form a fused heteroaromatic or heterocyclic ring;

X is selected from the group consisting of -O-, -S-, -NR₅-, -C(O)-, -C(O)O-, -OC(O)-, and a bond; and

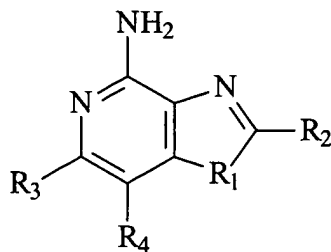
each **R₅** is independently H or C₁₋₈alkyl; or

a pharmaceutically acceptable salt thereof, with a pharmaceutically acceptable carrier, to the mammal.

32 (new) The method of claim 31 wherein the composition is administered topically.

33 (new) The method of claim 31 wherein **R₁** is sulfur.

34 (new) A method of treating a neoplastic disease in a mammal comprising administering a composition comprising a therapeutically effective amount of a compound of the formula I:



(I)

wherein:

R₁ is selected from the group consisting of oxygen, sulfur and selenium;

R₂ is selected from the group consisting of

- hydrogen;
- alkyl;
- alkyl-OH;
- haloalkyl;
- alkenyl;
- alkyl-X-alkyl;
- alkyl-X-alkenyl;
- alkenyl-X-alkyl;
- alkenyl-X-alkenyl;
- alkyl-N(R₅)₂;
- alkyl-N₃;
- alkyl-O-C(O)-N(R₅)₂;
- aryl;
- alkyl-X-aryl; and
- alkenyl-X-aryl;

R₃ and **R₄** are taken together to form a fused heteroaromatic or heterocyclic ring;

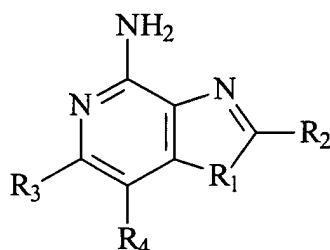
X is selected from the group consisting of -O-, -S-, -NR₅-, -C(O)-, -C(O)O-, -OC(O)-, and a bond; and

each R_5 is independently H or C_{1-8} alkyl; or
 a pharmaceutically acceptable salt thereof, with a pharmaceutically acceptable carrier, to
 the mammal.

35 (new) The method of claim 34 wherein the composition is administered topically.

36 (new) The method of claim 34 wherein R_1 is sulfur.

37 (new) A compound of the formula I:



(I)

wherein:

R_1 is selected from the group consisting of oxygen, sulfur and selenium;

R_2 is selected from the group consisting of

- heterocyclyl;
- alkyl-X-heterocyclyl;
- alkenyl-X-heterocyclyl;
- heteroaryl;
- alkyl-X-heteroaryl; and
- alkenyl-X-heteroaryl;

R_3 and R_4 are taken together to form a fused heteroaromatic or heterocyclic ring;

X is selected from the group consisting of $-O-$, $-S-$, $-NR_5-$, $-C(O)-$, $-C(O)O-$, $-OC(O)-$, and a bond; and

each R_5 is independently H or C_{1-8} alkyl; or

a pharmaceutically acceptable salt thereof.

38 (new) A compound according to claim 37 wherein R₁ is oxygen or sulfur.

39 (new) A compound according to claim 37 wherein R₂ is heterocyclyl.

40 (new) A compound according to claim 37 wherein R₂ is selected from the group consisting of morpholinyl, piperidinyl, and pyrrolidinyl.

41 (new) A compound according to claim 37 wherein R₁ is sulfur.

42 (new) A compound according to claim 37 wherein R₃ and R₄ are taken together to form a substituted or unsubstituted pyridine ring.

43 (new) A compound according to claim 38 wherein R₃ and R₄ are taken together to form a substituted or unsubstituted pyridine ring.

44 (new) A pharmaceutical composition comprising a therapeutically effective amount of a compound of claim 37 or a pharmaceutically acceptable salt thereof, with a pharmaceutically acceptable carrier.

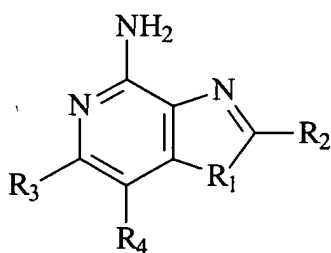
45 (new) A method of inducing cytokine biosynthesis in a mammal comprising administering a composition of claim 44 to the mammal.

46 (new) The method of claim 45 wherein the cytokine comprises IFN- α .

47 (new) The method of claim 45 wherein the cytokine comprises TNF- α .

48 (new) The method of claim 45 wherein the composition is administered topically.

- 49 (new) The method of claim 45 wherein R_1 is sulfur.
- 50 (new) A method of treating a viral disease in a mammal comprising administering a composition of claim 44 to the mammal.
- 51 (new) The method of claim 50 wherein the composition is administered topically.
- 52 (new) The method of claim 50 wherein R_1 is sulfur.
- 53 (new) A method of treating a neoplastic disease in a mammal comprising administering a composition of claim 44 to the mammal.
- 54 (new) The method of claim 53 wherein the composition is administered topically.
- 55 (new) The method of claim 53 wherein R_1 is sulfur.
- 56 (new) A compound of the formula I:



(I)

wherein:

R_1 is selected from the group consisting of oxygen, sulfur and selenium;

R_2 is selected from the group consisting of

- hydrogen;
- alkyl;
- alkyl-OH;

-haloalkyl;
-alkenyl;
-alkyl-X-alkyl;
-alkyl-X-alkenyl;
-alkenyl-X-alkyl;
-alkenyl-X-alkenyl;
-alkyl-N(R₅)₂;
-alkyl-N₃;
-alkyl-O-C(O)-N(R₅)₂;
-heterocyclyl;
-alkyl-X-heterocyclyl;
-alkenyl-X-heterocyclyl;
-aryl;
-alkyl-X-aryl;
-alkenyl-X-aryl;
-heteroaryl;
-alkyl-X-heteroaryl; and
-alkenyl-X-heteroaryl;

R₃ and **R₄** are taken together to form a fused cycloalkyl ring;

X is selected from the group consisting of -O-, -S-, -NR₅-, -C(O)-, -C(O)O-, -OC(O)-, and a bond; and

each **R₅** is independently H or C₁₋₈ alkyl; or
a pharmaceutically acceptable salt thereof.

57 (new) A compound according to claim 56 wherein **R₁** is oxygen or sulfur.

58 (new) A compound according to claim 56 wherein **R₂** is C₁₋₄ alkyl.

59 (new) A compound according to claim 57 wherein **R₂** is C₁₋₄ alkyl.

- 60 (new) A compound according to claim 56 wherein R_1 is sulfur.
- 61 (new) A pharmaceutical composition comprising a therapeutically effective amount of a compound of claim 56 or a pharmaceutically acceptable salt thereof, with a pharmaceutically acceptable carrier.
- 62 (new) A method of inducing cytokine biosynthesis in a mammal comprising administering a composition of claim 61 to the mammal.
- 63 (new) The method of claim 62 wherein the cytokine comprises IFN- α .
- 64 (new) The method of claim 62 wherein the cytokine comprises TNF- α .
- 65 (new) The method of claim 62 wherein the composition is administered topically.
- 66 (new) The method of claim 62 wherein R_1 is sulfur.
- 67 (new) A method of treating a viral disease in a mammal comprising administering a composition of claim 61 to the mammal.
- 68 (new) The method of claim 67 wherein the composition is administered topically.
- 69 (new) The method of claim 67 wherein R_1 is sulfur.
- 70 (new) A method of treating a neoplastic disease in a mammal comprising administering a composition of claim 61 to the mammal.
- 71 (new) The method of claim 70 wherein the composition is administered topically.
- 72 (new) The method of claim 70 wherein R_1 is sulfur.